## ABSTRACT OF THE DISCLOSURE

There are provided a sintering method and a sintering apparatus of a porous glass base material for sintering a porous glass base material to be dehydrated and vitrified into a transparent glass without causing core displacement and cross-sectional shape deformation. In detail, an aspect of the present invention is a sintering method of a porous glass base material for sintering a rod-like porous glass base material by hanging and moving the rod-like porous glass base material through a heating furnace. Here, the porous glass base material is lowered into a heating furnace heated to a sintering temperature, and after every part of the porous glass base material is moved through a preheated region extending from an upper edge of an insulating member to an upper edge of a heater in a heating furnace body in 4.5 hours or longer, the porous glass base material is sintered by the heater to be vitrified into a transparent glass.